

## **MEMORANDUM OF UNDERSTANDING**

**between**

**the European Commission and the Ministry of Science and Technology  
of the People's Republic of China  
(herein referred to as the Sides )**

**on**

**Cooperation on Near Zero Emissions Coal (NZEC) Power Generation Technology  
through Carbon Dioxide Capture and Storage (CCS)**

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Between  
the Ministry of Science and Technology of the People's Republic of China and  
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**Background**

The Joint Statement of the Eighth EU-China Summit in Beijing on 5 September 2005 underlined the determination of both Sides to tackle the serious challenge of climate change through practical and results-oriented co-operation.

A Joint Declaration on Climate Change between the People's Republic of China and the EU was issued on the same occasion which established an EU-China Partnership on Climate Change designed to strengthen practical cooperation on the development, deployment and transfer of clean fossil fuel technologies, to improve energy efficiency and to achieve a low carbon economy, including cooperation in carbon dioxide capture and storage.

This partnership includes co-operation on the development, deployment and transfer of low carbon technologies, including the aim to develop and demonstrate, in the EU and in the People's Republic of China, advanced near-zero emission power generation technology, through carbon dioxide capture and storage, by 2020.

**NZEC Phase I**

The EC-China Memorandum of Understanding (MoU) was concluded between the Ministry of Science and Technology of the People's Republic of China and the European Commission on 20 February 2006 and the UK-China Memorandum of Understanding between the Ministry of Science and Technology of the People's Republic of China and the Department of Energy and Climate Change (former Department for Environment Food and Rural Affairs and the Department of Trade and Industry) of the United Kingdom on 21 December 2005.

The two MoUs set out the cooperation on Phase I, which comprise several projects conducting initial research to explore the feasibility and potential options for carbon capture and storage (CCS) mainly for coal-fired power generation in the People's Republic of China.

The European Commission's research projects "Cooperation Action within CCS China-EU (COACH)", "Support Regulatory Activities for CCS (STRACO2)", and "Assessing Capacity for Geological Storage of Carbon Dioxide (GeoCapacity)" with the participation of Chinese teams and the "China-UK Near Zero Emissions Coal Initiative (China-UK NZEC)", provided important analysis to support the CCS demonstration project prefeasibility.

The two year implementation of Phase I was concluded through a jointly convened conference *China-EU Cooperation on Near Zero Emissions Coal: Phase I Results and Next Steps* on 28-29<sup>th</sup> October 2009 in Beijing. Both Sides welcome and appreciate the activities and outcomes in capacity building and awareness raising on CCS in China, as well as exploration of different technical options.

Both Sides recognize there are still issues to be addressed before the feasibility study is undertaken.

### **Contents of the new MoU (Phase II)**

Acknowledging the outcomes of the Phase I and the gaps, the Sides envisage to initiate a Phase II as follows:

The purpose of this new Memorandum of Understanding (Phase II) is to continue the cooperation on near-zero emissions coal technology between the People's Republic of China and the EU.

The Sides envisage to further build on the results of Phase I, finalising first the pre-feasibility work and conducting a feasibility study in a second step including the analysis of the technical, economical, legal and socio-environmental aspects.

They consider to strengthen targeted technology cooperation in support of the construction and operation of the demonstration, and to explore a cooperation and transfer scheme of related technologies.

In this context, the Sides should focus on the technologies demonstration of near-zero emissions coal fired power generation (NSEC) through the application of safe and environmental sustainable carbon dioxide capture and geological storage (CCS).

Under the guidance of the Commission and Chinese public authorities, the feasibility study should be implemented by European and Chinese companies and experts, taking in due consideration the legal constraints of both Sides and with a balanced role for both Sides. Where appropriate, the Sides will agree in advance the scope, participants, management, cost structure, financing, exchange of information and data and its potential outcomes, the calendar, division of labour and any other relevant issues of the project.

There is intended to be a strong emphasis on joint work for knowledge sharing and technology development and on building capacity, expertise, skills and sharing of experiences which will benefit both the EU and the People's Republic of China. A mechanism should be agreed for mutual exchange of information and experience between European and Chinese CCS activities.

The European Commission considers to financially support the activities in Phase II up to the amount of €7 million and to examine further cooperation with EU and EEA Member States, international stakeholders financial institutions and industry.

The aim is to complete the second Phase of the cooperation by 2012.

### Phase III

Phase III, following results of Phase II, could involve the construction and operation of the CCS demonstration of the plant. Phase III is intended to be considered in a further MoU.

Any further investment decisions will be considered on the basis of the Phase II feasibility study and will be subject to agreement by the relevant partners.

### **Final Considerations**

Both Sides form a joint Steering Committee to guide, review and facilitate the cooperation process. Members are appointed by both Sides equally. The Steering Committee meets once it is formed and as often as necessary thereafter.


Member States of the EU and the European Economic Area may be invited to participate in the activities under this initiative, and be admitted to be represented on the steering committee on terms to be set by the two Sides.

The present document records political intent alone and provides for no legal commitment.

Signed in Nanjing in two originals both in the Chinese and English languages on 30 November 2009.



The European Commission



The Ministry of Science and Technology of  
People's Republic of China